WIENER
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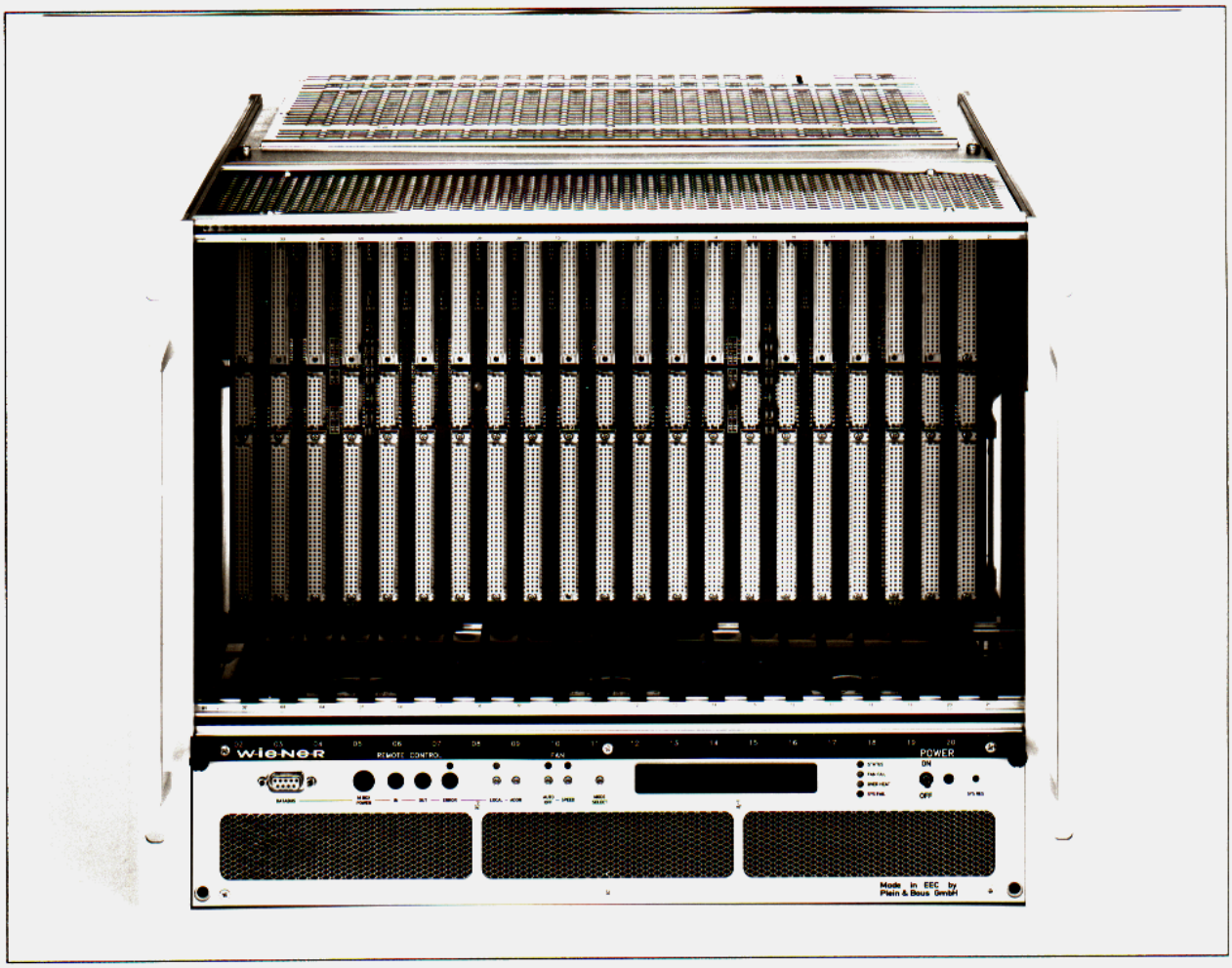

VME-CRATE TYPE 430

User Manual

General Remarks

The only purpose of this manual is a description of the product. It must not be interpreted as a declaration of conformity for this product including the product and software.

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PROFIBUS if named in this document is **replaced by CAN*bus***

Mains Voltage and Connection

The Power supplies are equipped with a "World"- mains input, which works properly form 94VAC up to 264VAC and within a frequency range of 47 to 63Hz.
Before connecting to the mains please double-check correspondence.
The mains input connection at the power supply side is done with a 3-pin Hirschmann connector (input current max. 16 A) or power terminals.

Hirschmann Pin No.	Signal	Description	Color of the Wire
Pin 1	L	Phase	black or brown
Pin 2	N	Return, Neutral	blue
Pin 3		not connected	
Earth	PE	Protective Earth	green/yellow

Safety

After connecting the Power box to the mains, the mains input module is powered permanently. Filter and storage capacitors of the power factor correction module are charged with about **400VDC**. The DC-On-Signal as well as a power switch at control board (if any installed) operates as a DC on/off switch only and not as a mains breaker. **Therefore it becomes dangerous if the box cover is open. In this case a lot of components on high voltage potential get touchable!**

Before starting any kind of work inside the power box remove the unit from mains and wait a couple of minutes with your activities! Discharge the primary DC Filter-capacitors by use of a well isolated 22 ohm 10W resistor.

CONTENTS

1.	Specification	2
1.1.	VME-bin UEV 431 with backplane	2
1.2.	VME-fan-tray UEL 425	2
1.3.	VME-fan-tray UEL 425/EC	6
1.4.	VME-power-supply UEP 429	8
1.5.	Technical data summary	11
2.	Operating instructions	13
2.1.	Global operations	13
2.2.	Fan-tray operations	14
2.3.	Power-supply monitoring and control operations	14
2.4.	Error message list	15
2.5.	Change of air flow direction	16
3.	Test sheet	17
A.	Appendix	18
A.1.	Scheme of crate dimensions	19
A.2.	Principe diagram	20
A.3.	Wiring diagram	21
A.4.	J1, J2, J_{aux} pin allocation table and position scheme	22
B.	Summary data sheet	

23th. May 1995

1. Specification

1.1. VME-bin UEV 431 with backplane

The UEV 431 is a 8 units high VME-bus bin which conforms to the VITA-VME specification (ANSI/IEEE STD1014-1987 IEC 821 and 297) as well as to the CERN-specification for VME-bus crate type 430. It is suitable for mounting in a 19-inch rack and contains 21 slots for standard VME-bus system cards of 6 units height and 160 mm length. The extremely rigid construction is based on steel-aluminium side panels fixed by stable aluminium transversal bars and has the size of 483 mm x 8 U x 420 mm (whd). It has an excellent shielding by low resistive screw connections and grounding of the bin parts.

The UEV 431 is equipped with a printed multilayer monolith backplane carrying the J1, J2, and J_{aux} connector rows according to the CERN V430 specification. The backpanel is characterised by a reflex- and cross-talk minimised design.

The VME-bus J1 and J2 data ways which comply with the VME-bus specification are passive terminated on both ends of the backpanel (on-board termination). Additionally, the *BUS GRANT* lines (*BG0, BG1, BG2, BG3*) are equipped with optional individual termination's by jumper posts at both ends of the backplane (CERN V430 specification). The jumper posts for *BGIN / BGOUT* and *IACK DAISY-CHAIN* at every slot are available on both sides of the backplane. Free access is given to the back of the lower J2 dataway which is equipped with connector guides for I/O cabling, and sub-system bus backplanes as for instance VSB-backplanes. After removing the power supply free access to the J1 connectors is possible, too.

The J_{aux} dataway which is not part of the standard VME specification is placed in the free space between J1 and J2. As defined by the CERN V430 specification it provides especially, the -5.2V and -2V rails required for fast ECL logic as well as the $^{+}/_{-}$15V rails.

All power connections (+5V, $^{+}/_{-}$12V, $^{+}/_{-}$15V, +5V stdby, -5.2V, and -2V) comply with the VME-bus specification.

1.2. VME-fan-tray UEL 425

Plugged into the bin from the front the UEL 425 fan-tray and control unit occupies the two units of the crate below the VME-bus slots. 3 axial d.c.-fans provide a sufficient air flow to dissipate the heat generated in the modules.

The UEL 425 fan-tray can operate in two different modes. In the standard mode the air is taken from the front and then pushed upwards to the modules. A bottom side air inlet for full cooling efficiency can be reached by removing the bottom plate of the fan-tray and mounting an optional front cover. The maximal air flow reached by the W-ie-Ne-R fan-tray in this mode is greater then 540 m^3/h and shows a good homogeneity. Thus, 1250 W may be dissipated by the air flow. Working with front air inlet only a reduced air flow of about 400 m^3/h is available. Due to the lower homogeneity of the air distribution in this mode only the power dissipation of about 800 W can be cooled. The static pressure is equal to 10 mm water column.

All elements of the control unit are placed at the front panel of the fan-tray,

SWITCHES

POWER ON /Off	main switch for ventilation and power supply
SYS RES	protected located switch for *SYSRESET* circuit activation
MODE SELECT	selection switch to choose items and values for fan-tray and power supply monitoring and control
FAN SPEED	push button for step wise in- or decrease of fan speed
FAN AUTO OFF	switch to choose between local and remote warning or d.c. voltage cut-off after fan-failure

LED - INDICATORS

AC POWER	green large LED lights if *POWER* is on
STATUS	green LED lights if all voltages are within the limit
FAN FAIL	yellow LED lights if a fan failure is recognised
OVERHEAT	yellow LED lights if an overheat in the power supply occur
SYS FAIL	red LED lights if VME-bus system generates the *SYSFAIL* signal (system failure)
FAN SPEED	red control LED for reduced fan speed (below 3000RPM)
FAN AUTO OFF	red control LED for 'only warning after fan failure' mode (d.c. off after fan failure disabled)

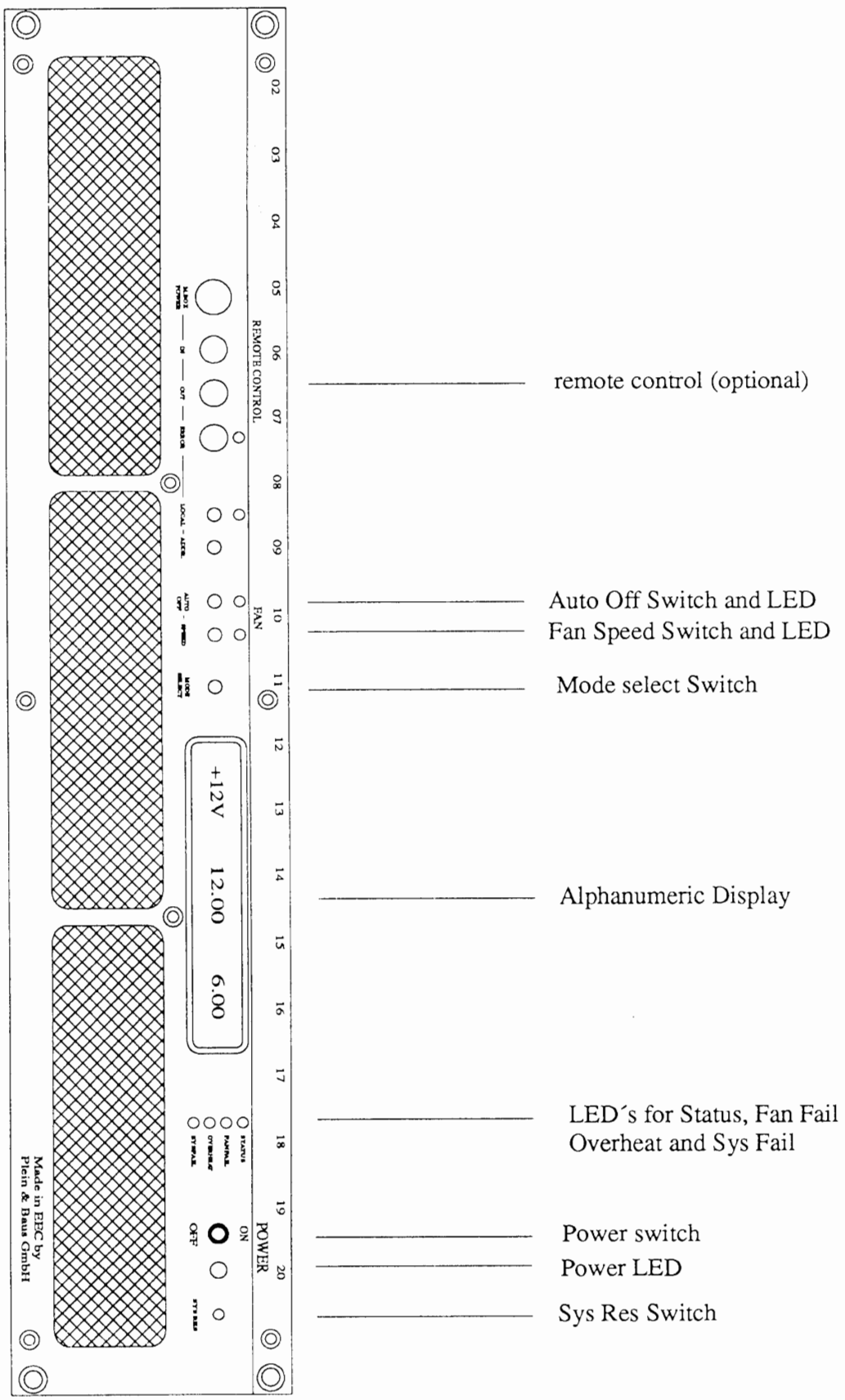


Fig.1 Fan-tray front panel with optional CAENET interface

Every fan is single controlled by the micro-processor based fan failure and fan speed control unit. Thus a malfunction of any one of the fans is detected. With the FAN SPEED switch the speed of the fans can be step wise reduce or increase . Further, it is possible to switch the fans complete off if the **optional** crate temperature measurement (at slot 1 position) is installed. In this case the bin temperature is automatically controlled. If the bin temperature reaches the threshold value of 45°C the fans are automatically switched on.

For monitoring of fan speed, voltages, currents, temperatures, and **optional** bin temperature and network address the control and monitoring unit is equipped with a LED - alphanumeric display. In the case of illegal conditions or crate failures it serves as diagnostic system.

For the data transfer between fan-tray, bin and power supply based on the RS232 standard (2400 Baud) the free lines 41 and 42 at PG46/PG47 (see wiring scheme) are used. They now correspond to the RS232 TXD and RXD lines. Further, the free lines 8 and 9 at PG46/PG47 are used for the **optional** bin temperature measurement (at slot 1) and for the SYSFAIL signal respectively. By this way the monitoring and controlling operations are extended by a lot of important functions.

By use of an **optional** possible interface all fan parameters can be monitored and each fan can be single controlled. If using all W-IE-NE-R power supply, fan-tray and bin, a lot of control functions concerning the power supply are possible too.

Optionally several interfaces are available as *CAENET*, *IEC*, and *PROFIBUS*. Thus, remote control from a single point by an IBM-PC or a seperated VME or CAMAC crate is possible by use of

IEC interface	for up to 15 crates
CAENET interface	for up to 99 crates
PROFIBUS interface	for up to 256 crates.

According to the CERN V-430 specification for remote control and monitoring the following signal lines are available at a monitoring and control connector (CANON Type DAC 15-S-FO) which is placed at the bin backside,

Remote monitoring and control

line	**Description**
STATUS	status monitor output
FAN FAILURE	fan failure output
A.C.POWER INHIBIT	remote on / off
SYSRESET	manual system reset
0V SIGNAL	common control return line
DISABLE	global trip-off disable input
GND	ground.

STATUS and FAN FAILURE are switched by relais contacts. They are close connected to the return lines in case of correct operation. The system reset circuit is activated by a short circuit between the SYSRESET and the GND signal line. For trouble shooting purposes the global trip-off can be disabled by a jumper connection between INHIBIT and 0V SIGNAL lines.

1.3. VME-fan-tray UEL 425/EC

The UEL 425/EC is the W-Ie-Ne-R economic fan tray unit version which conforms the CERN V430 standard. The unit is equipped with 3 axial 2-speed AC-fans. The fans are noise decreased mounted with shafts on ball bearings.

SWITCHES

POWER ON /Off	main switch for ventilation and power supply
SYS RES	protected located switch for *SYSRESET* circuit activation
RANGE SELECT	circular selection switch to choose voltage range
FAN SPEED	2 position button for fan speed
FAN AUTO OFF	switch to choose between local and remote warning or d.c. voltage cut-off after fan-failure

LED - INDICATORS

AC POWER	green large LED lights if *POWER* is on
STATUS	green LED lights if all voltages are within the limit
FAN FAIL	yellow LED lights if a fan failure is recognised
OVERHEAT	yellow LED lights if an overheat in the power supply occur
SYS FAIL	red LED lights if VME-bus system generates the *SYSFAIL* signal (system failure)
FAN SPEED	red control LED for reduced fan speed (approx. 50%)
FAN AUTO OFF	red control LED for 'only warning after fan failure' mode (d.c. off after fan failure disabled)

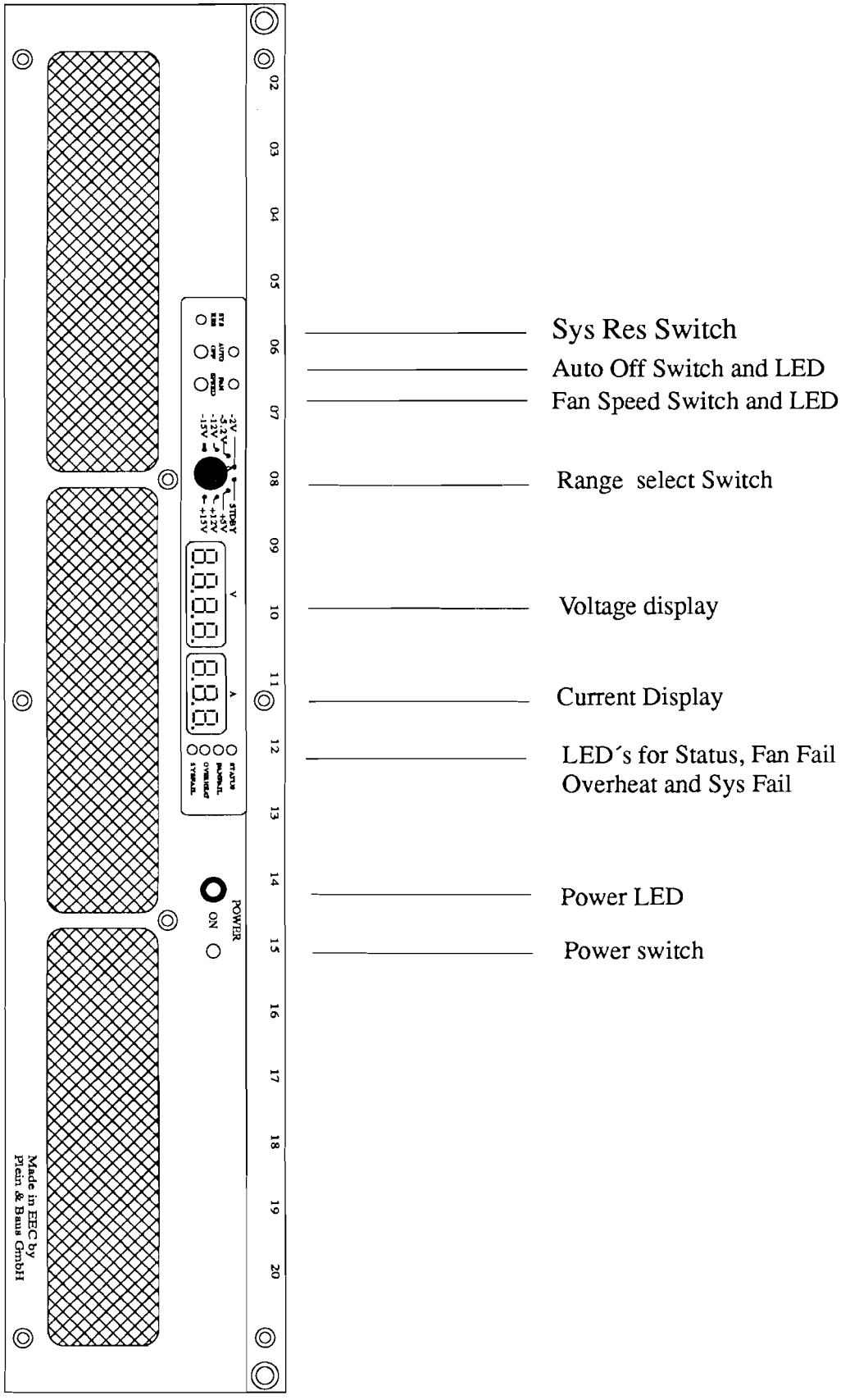


Fig.2 UEL 425 EC fan tray front panel

As the microprocessor controlled fan tray unit the UEL425/EC can operate in two different modes. In the standard mode the air is taken from the front and then pushed upwards to the modules. A bottom side air inlet for full cooling efficiency can be reached by removing the bottom plate of the fan-tray and mounting an optional front cover. The maximum air flow reached is greater then 380 m^3/h and shows a good homogeneity. Working with front air inlet only a reduced air flow is available. The static pressure is equal to 8 mm water column. With the 2 position FAN SPEED switch the speed of the fans can be reduced.

For monitoring of voltages and currents the control and monitoring unit is equipped with a dual digital panel meter. The voltage range can be chosen by a circular selection switch.

All elements of the control unit are placed at the front panel of the fan-tray,

1.3. VME-power-supply UEP 429

The VME-power-supply UEP 429 is a micro-processor controlled switching power supply designed in a high density modular technology. The power supply is placed within the bin in the upper part of the back behind the backplane. It can be removed or inserted easily by the user.

The a.c. input voltage is 180-264 V / 47-63 Hz whereby the input is protected by a slow-blow fuse 10A/250V. A solid state relay connects the power supply to a.c. mains. The relay is activated by the POWER ON/OFF switch mounted at the fan-tray front panel.

The VDE 0871 class B rule concerning RFI rejections is accomplished. The insulation performs the CERN V430 specification with input to output 1KV-eff. However, due to the bin - fan-tray and bin - power supply connectors (48 pin-RADIALL) required by the CERN V430 specification the ISO /VDE norm is not realised.

The available voltages with the corresponding maximum available currents are given in the following table

tem	Power supplies	VME- Series 430	
0370- 0302. H	UEP 429 CERN	5V/100A +/-12V/10A	90-265VAC
0370- 0012. H	UEP 429	5V/200A +/-12V/10A	90-265VAC
0370- 0312. H	UEP 429	5V/300A +/-12V/10A	90-265VAC
0370- 0052. H	UEP 429	5V/100A -5,2V/100A -2V/50(100)A +/-12V10A	90-265VAC
0370- 0353. H	UEP 429	5V/200A -5,2V/100A -2V/50(100)A +/-12V/10A	90-265VAC
0371- 0352. H	UEP 429	5V/100A -5,2V/100A -2V/50(100)A +/-12V/10A +/-15V/10A	90-265VAC

The power output to backplane connections conform to the CERN V430 specification, i.e. the high current d.c. power outputs (+5V, -5.2V, -2V and GND) are connected with the backplane bus bar via massive special fork connectors and the low current outputs ($^{+}/_{-}$12V, $^{+}/_{-}$15V) as well as the sense, monitoring and control signal lines via a multiway (48-pin RADIALL) connector. Each output rail can be adjusted by a multi-turn potentiometer which is placed at each power module covered by the top plate, but free accessible.

The voltage regulation parameters depends on the module type, i.e. switched or linear regulated module. The static regulation is better than 0.2% or 0.3% for $^{+}/_{-}$ 100% load change combined with $^{+}/_{-}$15% mains variation for the switched and the linear regulated modules, respectively. In the case of dynamic regulation the deviation is lower than 0.7% within 0.35 ms for $^{+}/_{-}$25% load change for the switched module and lower than 0.7% within 0.2 ms for $^{+}/_{-}$25% load change for the linear regulated one. The periodic and random deviations (PARD) are less than 20 mV(pp) for 20 MHz and 5 mV(pp) for 2 MHz band width, as well as 5 mV(pp) for 20 MHz and 1 mV(pp) for 2 MHz band width for the linear regulated voltage. If the UEP 429 is used in a compatible bin the PARD may be higher but within the CERN-specification (<50mV(pp))

By the help of the remote sense lines an output voltage compensation of at least 0.5 V is possible. An internal 10 ohm resistor is mounted between each sense and power line to avoid a going out of control in the case of external disconnected sense lines.

Turning on the power supply all voltages reach the nominal values nearly simultaneously within $50^{+}/_{-}2.5$ ms (start-end-time) whereby the voltage versus time curve shows a monotone behaviour. The start-off-time which corresponds to a value of 10% of the nominal voltages is reached after $2.5^{+}/_{-}2.5$ ms. The turn-on inrush current is limited by a soft start-circuit to a maximum value of 12 A.

The UEP 429 shows an excellent long time stability. Under constant conditions the maximum voltage drift is lower than 10 mV or 0.1% within 24 hours or 50 mV or 1.0% within 6 months. The temperature coefficient of the output voltages is less than $2.0*10^{-4}$ /K.

To dissipate the heat produced within the power packs two fans are placed in the bottom of the power supply.

All monitoring and control operations are performed by a micro-processor based alarm and control circuit which is placed inside the UEP 429. To protect both the power supply and the VME modules, a d.c. cut-off is started in the case of,

- **overheat** in the power modules (each module is equipped with temperature sensors);

- **overload**, i.e. 115% of nominal maximal current is exceeded (trip-off current set to 115% as standard value, can be changed [see 2.2.]);

- **overvoltage**, if voltage >125% (hardware) and if >105% (software, can be changed)

- **undervoltage**, if voltage <97.5% (software, can be changed)

- **fan failure**.

If the d.c. cut-off is started all voltages decrease within a time of 5 ms to a minimum of about 20% of their nominal values (or -1V for the -2V output).

For monitoring all voltages and currents as well as the temperature inside the power supply (and fan speed, air entry temperature, and optional parameters, see 1.2) can be shown on the alphanumeric display of the fan-tray. The current information is given by a d.c. output reference voltage which corresponds to the current with a ratio of 1V/100A (+5V, -5.2V, -2V) or 1V/10A ($^{+}$/_12V, $^{+}$/_15V). The display ADC resolution is 10 bit. The accuracy of the voltage measurement is better than 0.5%. The accuracy of the current measurement depends on the corresponding voltage, i.e. for $^{+}$/_5V it is better than 2A in the range between 5A - 50A and for -2V it is better than 1A in the range between 1A - 20A. Above these current ranges the accuracy is at least 5% of the final value. In the case of $^{+}$/_12V and $^{+}$/_15V the accuracy is better than 0.2 in the whole current range.

In addition to the standard VME and CERN V430 specification it is possible to change and adjust the values for current limits (trip off current) as well as for minimum and maximum voltages (see 2.2). Thus, module damages during tests can be prevented. However, this software based feature works only if using together W-ie-Ne-R power supply, fan-tray, and bin.

For the data transfer between fan-tray, bin and power supply based on the RS232 standard (2400 Baud) the free lines 41 and 42 at PG44 - PG45 (see wiring scheme) are used. They now correspond to the RS232 TXD and RXD lines. By this way the monitoring and controlling operations of the power supply are extended by a lot of important functions.

Optional several interfaces for the fan-tray are available as *CAENET*, *IEC*, and *PROFIBUS*. Thus, remote control and operation of the fan-tray and the power supply is possible from a single point (IBM-PC or a separated VME or CAMAC crate, see 1.2.).

1.5. Technical data summary

BIN UEV 431

Dimension	483 mm x 8U x 420 mm (whd) 21 slots for 6U VME-system cards
Backplane	multilayer monolith, J1, J2, and J_{aux} (CERN V430)
Weight	9.6 Kg

FAN-Tray UEL 425

Number of fans	3
Fan type	SANYO DC San Ace 109P1224H102
Fan live time	60.000 h (at 40 °C)
Maximum air flow	>540 m^3 /h (bottom air inlet) >400 m^3 /h (front air inlet)
Max. static pressure	>10mm water column.
Control unit	micro-processor based with alphanumeric display (10 bit ADC)
Weight	3.3 Kg

FAN-Tray UEL 425 EC

Number of fans	3
Fan type	Papst 4658N
Maximum air flow	>380 m^3 /h (bottom air inlet)
Max. static pressure	>8mm water column.
Control unit	dual digital voltage / current panel meter
Weight	3.9 Kg

1.5 Technical Details of UEP429 Power Supplies

Mains input
Sinusoidal: **CE** EN 61000, pow. fact. 0,98 (230VAC), 92...264VAC, 16A
Inrush current: limited to nominal input current, max.

Available modules	min. to max.	range	max. output
Type MEH	2... 7V	100A +15% /	550W
Type MDH	6... 16V (+/-)	20A +15% /	300W (600W)

Regulation

static: MEH 550W/650W		<15mV	(+/-100% load, +/- full mains range)
MDH	<0,05%	(+/-100% load, +/- full mains range)	
dyn.: MEH, MDH	<100mV	(+/-25% load)	

Recovery time +/-25% load:	within +-1%	within +-0,1%
MEH / MDH	0,2ms	0,5ms,

Sense compensation range: difference between min. and max. output voltage

Noise and ripple : <10mVpp, (0-20MHz) <2mVrms (0-30MHz)

Operation temperature range: 0....50°C without derating, Storage:-30°C ... +85°C
Temp.-coefficient: < 0,2% / 10K
Stability (conditions const.): 10mV or 0,1% / 24 hours, 25mV or 0,3% / 6 month

Current limits: adjustable to any lower level
Voltage rise characteristics: monotonic 50ms, processor controlled.

Protective equipment
Overvoltage crow bar : trip off adjusted to 125% of nominal voltage each output
DC Off (trip off): within 5ms if >2% deviation from adjusted nominal values, by reason of overload, overheat, over-voltage, under-voltage, (bad status) and fan fail
if temperatures exceed 110°C heat sink, 70°C ambient
Trip off points adjustable, processor controlled. Output capacitors will be discharged by the crow bars if the power supply trips or when switched off.

Efficiency: 75% ... 85%, depends on modules / output voltage

Life time:

DC- Fans:	25°C ambient >85 000h	40°C >65 000 h
Power Supply electronics:	40°C >130 000 h	

Weight: 14....18kg dependent upon number of fitted modules

2. Operating instructions

2.1. global operations

POWER ON/OFF switch up : on (green POWER LED lights)
switch down : off

SYSRESET pushing will call a VME-SYSRES, after pushing the display shows 'SYS RES'

MODE SELECT switch up : next mode (UEL 425)
switch down : previous mode (UEL 425)

7 position switch for voltage range (UEL 425 EC)

The red *SYS FAIL LED* lights up if the SYSFAIL signal is generated by the VME-bus system. This indicator works only if using all together W-ie-Ne-R power supply, fan-tray, and bin.
On the alphanumeric display in the centre of the fan-tray front panel the values of fan speed, temperatures, voltages and currents as well as the adjusted voltage and current limits will be shown. To choose between the available modes push the ***MODE SELECT*** switch.
The following table gives a look about all available modes and shows examples for the displayed values. Note that the modes marked by * only will be shown if the **optional** available network interface (*CAENET, IEC. PROFIBUS*) and / or the bin temperature measurement at slot 1 is installed.

Available Modes and Display Examples

Mode	Voltage	Current	Description
+5V	5.00	100.0	+5V channel
+12V	12.00	6.00	+12V channel
+15V	12.00	3.00	+15V channel
STBY	5.00	----	stand-by channel
-5V	5.20	80.00	-5.2V channel
-12V	12.00	6.00	-12V channel
-15V	15.00	3.00	-15V channel
-2V	2.00	40.00	-2V channel
FANS	3000	RPM	fan rotation speed
TEMP	25	°C	fan air inlet temp.
PTMP	55	°C	power supply temp.
BTMP*	35	°C	bin slot 1 temp.*
CAEN*	ADDR	12	CEANnet address*
PROF*	ADDR	12	Profibus address*
IEC*	ADDR	12	IECbus address*

2.2. Fan-tray operations

FAN SPEED	switch up :	step wise increase of fan speed
	switch down :	step wise decrease of fan speed
AUTO OFF	switch up :	auto off enabled, a fan failure will set off the crate
	switch down :	auto off disabled, a fan failure will not set off the crate, only local and remote warning is given

The maximum value of fan speed is up to 3120 rpm. If the speed is lower than 3000 rpm the red *SLOW SPEED LED* lights. Change of fan speed is possible independently from the displayed mode. If another range of the display was set before pushing the *FAN SPEED* switch the display shows the speed for 5 sec. and returns back to the previous range. The display shows the nominal speed of the blowers and twinkles if it differs from the given real speed.
The yellow *FAN FAILURE LED* lights in the case of any fan-failure.

2.3. Power-supply monitoring and control operations

All present voltage and current values of the several voltage output lines as well as the temperature inside the power supply can be shown on the alphanumeric display of the fan-tray. To select between the display modes push the *MODE SELECT* switch as given in 2.2.
Using both W-ie-Ne-R power supply and fan-tray it is also possible to adjust the controlling limits of the power supply. The values of the minimum and maximum output voltage and the maximum current which cause a cut-off can be changed according to the following instructions,

1. Switch on fan-tray and select channel (e.g.+12V) with *MODE SELECT* switch.

2. Switch up both *POWER* and *MODE SELECT* switches together for about 5 sec. Then the controlling mode menu including selected channel, limit (starting with IOFF), and the corresponding value will be shown on the display.

3. Choose the type of limit (trip-off current: IOFF, minimum voltage: UMIN, and maximum voltage: UMAX) by pushing the *MODE SELECT* switch

4. Switch up *POWER* until the value twinkles.

5. Change the value by pushing the *MODE SELECT* switch down (value will decrease) or up (value will increase).

6. To accept the new value switch down *POWER*. The power supply control unit is programmed indicated by flashing *PROG*. To change the other limits repeat step 3 - 6.

7. Switch *POWER* down to end programming.

Note that all control limits are stored within the power supply control unit which is located inside the power supply. During programming all remote control signals will be ignored.

2.4. Error message list

Both, W-ie-Ne-R power supplies and fan-trays are equipped with micro-processor based monitoring and control units. Thus, any fan or power module failure will be detected and on the alphanumeric display an error message is shown. This is a useful information for trouble shooting.

2.4.1 Error messages during self test after switching on

Fan-Tray failures

CHKS CONF	Configuration check sum error
CHKS UCAL	Check sum error of calibration voltage
CHKS ICAL	Check sum error of calibration current
PROM CONN	internal CPU error
CHKS ADDR	Check sum error of network address
CHKS STAT	Check sum error of previous mains on/off status
CHKS FAN	Fan-tray check sum error

Power supply failures

PS PROM CHKS	Power supply check sum error

Pushing *SYSRES* the first three error messages will be ignored, but keep in mind the defective conditions especially, for the voltage and current monitoring. The other errors, instead of the CPU error are automatically corrected so that the error message serves only as information for the user.

2.4.2 Run time error messages

FAN OFF	Fan failure
TEMP OFF	Temperature of power supply too high
AC FAIL	Failure of a.c. power (line)
+/-??V OV	Overvoltage of channel +/-??V
+/-??V UV	Undervoltage of channel +/-??V
+/-??V OC	Overcurrent of channel +/-??V

2.5. Change of air flow direction

The UEL 425 fan-tray can operate in two different modes. The standard fan takes the air from the front and pushes it upwards to the modules. To reach full cooling efficiency through a bottom side air inlet remove the bottom plate and change the front cover plate according to the following instructions:

1. Release all screws of the fan-tray bottom plate and remove it.

2. Release the screws fixing the front plate of the fan-tray and remove front grid placed behind the front plate

3. Insert front cover plate (optional) and fix all screws.

3. Test sheet

A. Appendix

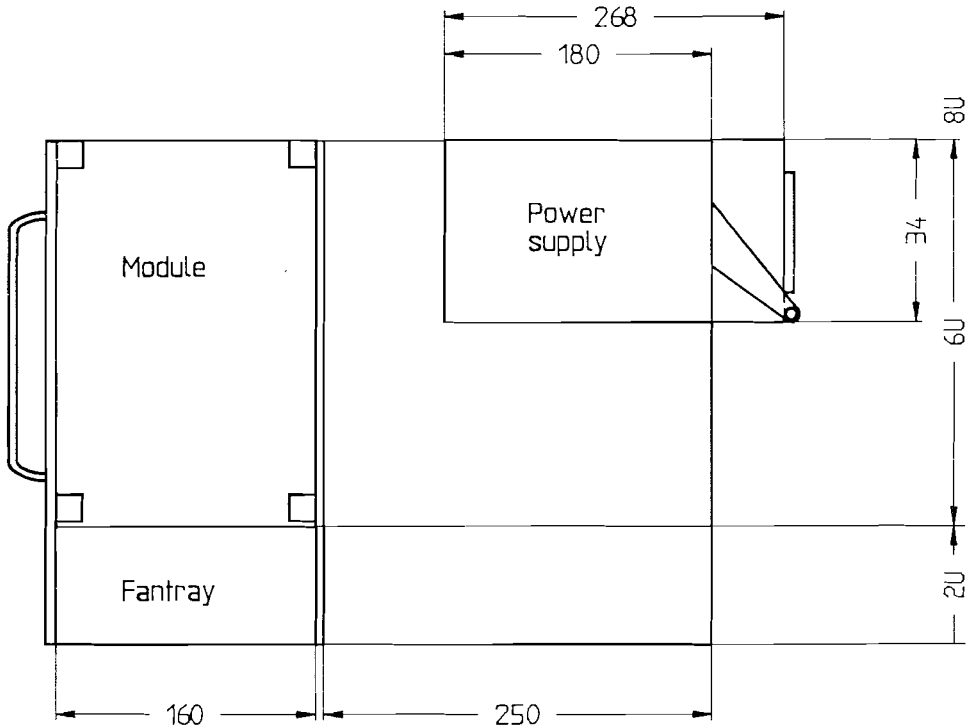
A.1. Scheme of crate dimensions

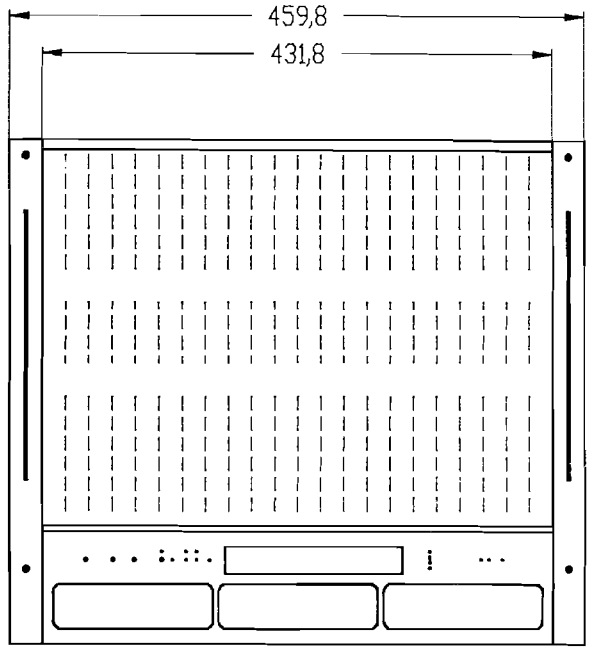
A.2. Principe diagram

A.3. Wiring diagram

A.4. J1, J2, J_{aux} pin allocation table and position scheme

B. Summary data sheet



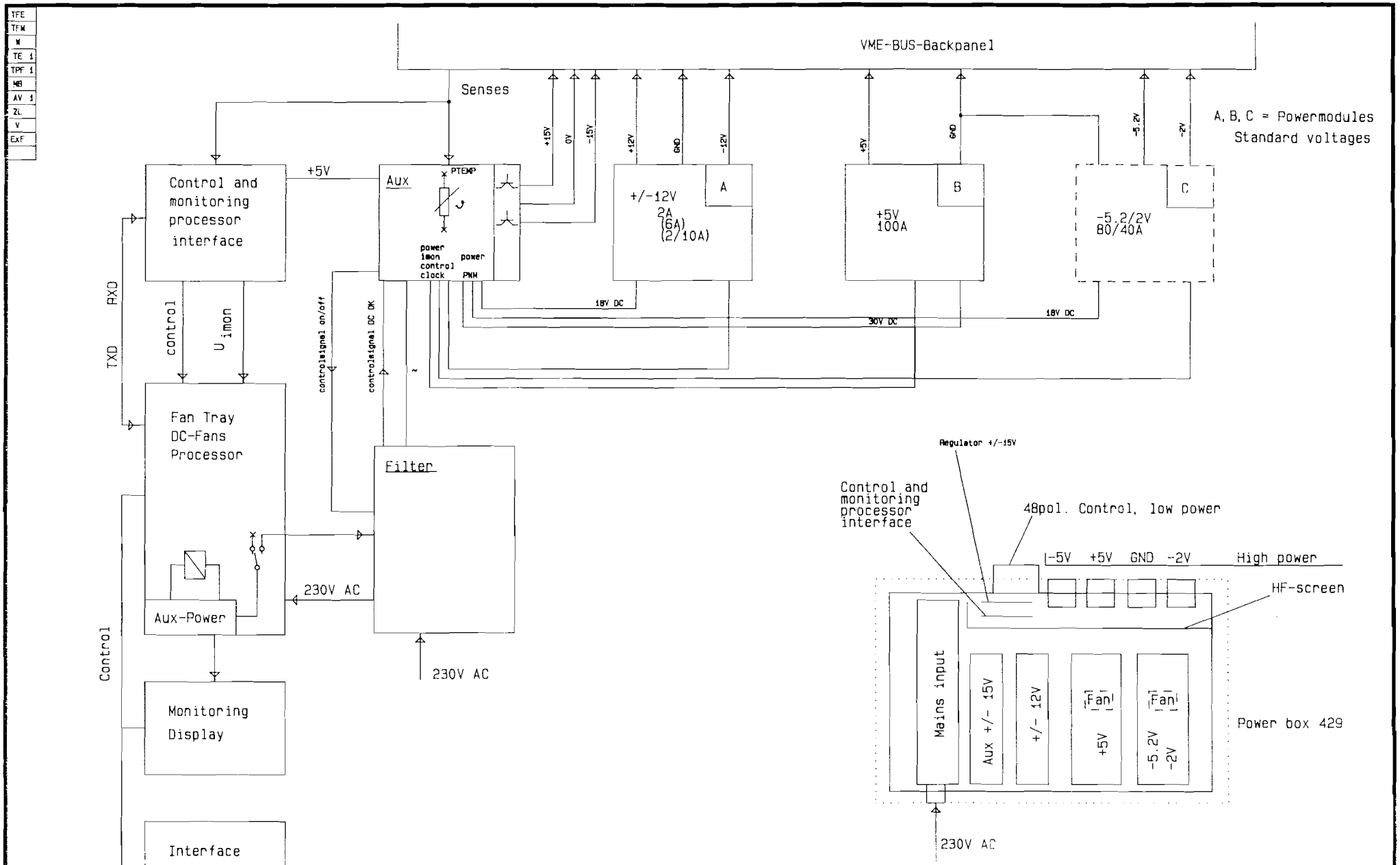


ohne Maßstab

UNITS	mm
2	88,9
6	266,7
8	355,6

Werkstoff : AlMg3					1993	Datum	Name	Benennung: 160mm Modul V430
Abmess. :					Gez.	17.03.	Lb.	
Sach-nr.:					Gepr.			
Oberfläche : gelb chromatiert					WIENER Plein & Baus GmbH			Zeichnung/Sach-Nr. 0000000 / Ind.Zch.-Art Blatter Bl. 01-300
	Zust.	Änderung	Datum	Name	s\angebote\160v430			Ers.f.: / Ers.d.:

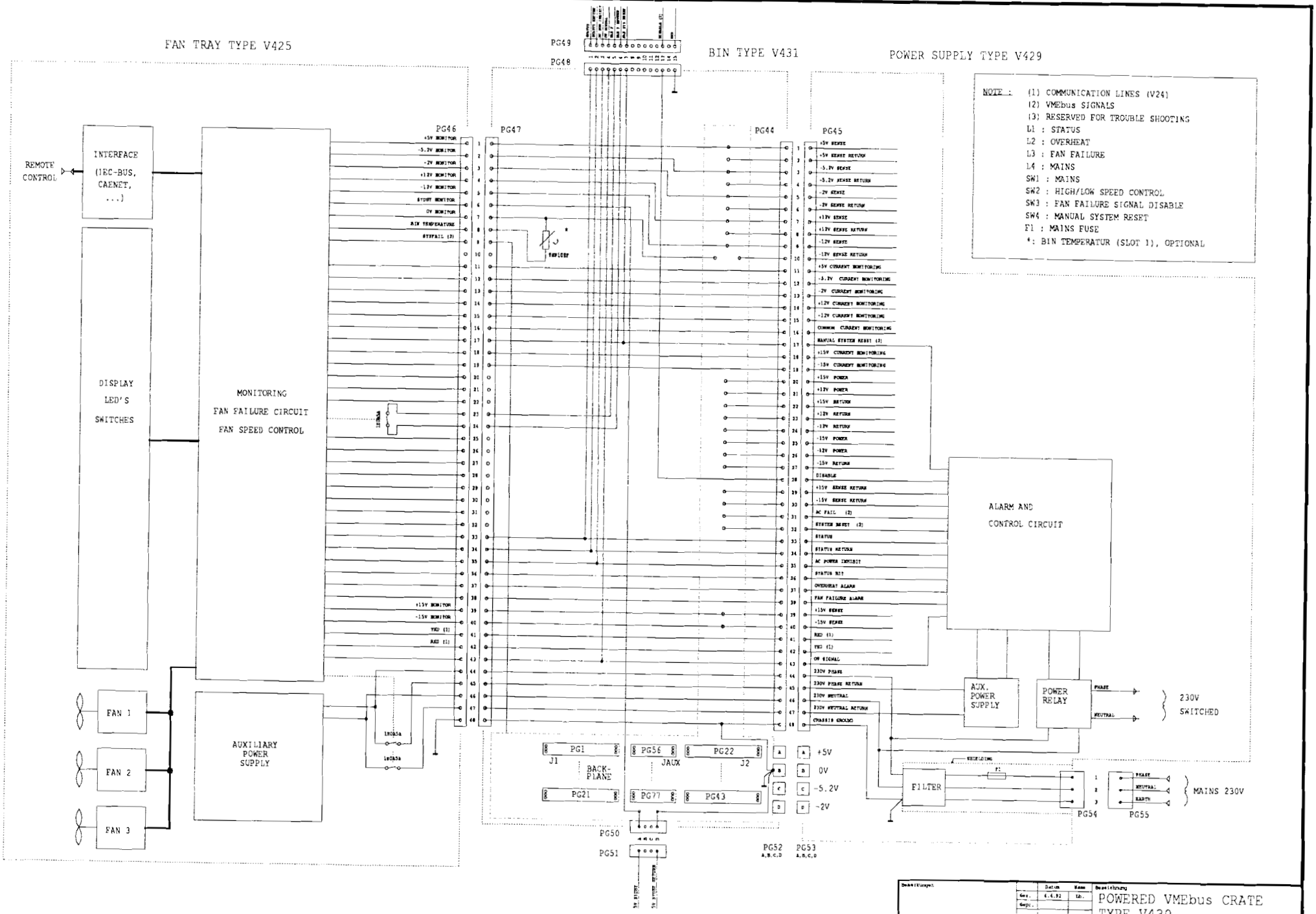
Für diese Zeichnung behalten wir uns alle Rechte vor !



Bemerkungen		Datum	Name
	Bez.	19.11.92	Lb.
	Gepr.		
	Wiener		

Bezeichnung
VME_Crate_V430
Princip-Diagram
Schaltplan

Zeichnungs-/Sach-Nummer	Index	Art	Blätter	Blatt
1403021	01	303	01	


FAN TRAY TYPE V425
BIN TYPE V431
POWER SUPPLY TYPE V429
PG49
PG48
PG46
PG47
PG44
PG45
REMOTE CONTROL
INTERFACE (IEC-BUS, CAENET, ...)
DISPLAY LED'S SWITCHES
MONITORING FAN FAILURE CIRCUIT FAN SPEED CONTROL
AUXILIARY POWER SUPPLY
FAN 1
FAN 2
FAN 3
ALARM AND CONTROL CIRCUIT
AUX. POWER SUPPLY
POWER RELAY
230V SWITCHED
FILTER
MAINS 230V
PG1
J1
BACK-PLANE
PG56
JAUX
PG22
J2
PG21
PG77
PG43
+5V
0V
-5.2V
-2V
PG50
PG51
PG52
PG53
PG54
PG55
NOTE : (1) COMMUNICATION LINES (V24)
(2) VMEbus SIGNALS
(3) RESERVED FOR TROUBLE SHOOTING
L1 : STATUS
L2 : OVERHEAT
L3 : FAN FAILURE
L4 : MAINS
SW1 : MAINS
SW2 : HIGH/LOW SPEED CONTROL
SW3 : FAN FAILURE SIGNAL DISABLE
SW4 : MANUAL SYSTEM RESET
F1 : MAINS FUSE
*: BIN TEMPERATUR (SLOT 1), OPTIONAL
POWERED VMEbus CRATE
TYPE V430
WIERING DIAGRAM
wiener
1253948
02
203
01
01

P1/J1			
Pin Number	Row A	Row B	Row C
1	D00	BBSY*	D08
2	D01	BCLR*	D09
3	D02	ACFAIL*	D10
4	D03	BG0IN*	D11
5	D04	BG0OUT*	D12
6	D05	BG1IN*	D13
7	D06	BG1OUT*	D14
8	D07	BG2IN*	D15
9	GND	BG2OUT*	GND
10	SYSCLK	BG3IN*	SYSFAIL*
11	GND	BG3OUT*	BERR*
12	DS1*	BR0*	SYSRESET*
13	DS0*	BR1*	LWORD*
14	WRITE*	BR2*	AM5
15	GND	BR3*	A23
16	DTACK*	AM0	A22
17	GND	AM1	A21
18	AS*	AM2	A20
19	GND	AM3	A19
20	IACK*	GND	A18
21	IACKIN*	(††) SERCLK	A17
22	IACKOUT*	(††) SERDAT*	A16
23	AM4	GND	A15
24	A07	IRQ7*	A14
25	A06	IRQ6*	A13
26	A05	IRQ5*	A12
27	A04	IRQ4*	A11
28	A03	IRQ3*	A10
29	A02	IRQ2*	A09
30	A01	IRQ1*	A08
31	-12 VDC	+5VSTDBY	+12 VDC
32	+5 VDC	+ 5VDC	+5 VDC

P2/J2			
Pin Number	Row A	Row B	Row C
1	User Defined	+5 VDC	User Defined
2	User Defined	GND	User Defined
3	User Defined	(†) RESERVED	User Defined
4	User Defined	A24	User Defined
5	User Defined	A25	User Defined
6	User Defined	A26	User Defined
7	User Defined	A27	User Defined
8	User Defined	A28	User Defined
9	User Defined	A29	User Defined
10	User Defined	A30	User Defined
11	User Defined	A31	User Defined
12	User Defined	GND	User Defined
13	User Defined	+5 VDC	User Defined
14	User Defined	D16	User Defined
15	User Defined	D17	User Defined
16	User Defined	D18	User Defined
17	User Defined	D19	User Defined
18	User Defined	D20	User Defined
19	User Defined	D21	User Defined
20	User Defined	D22	User Defined
21	User Defined	D23	User Defined
22	User Defined	GND	User Defined
23	User Defined	D24	User Defined
24	User Defined	D25	User Defined
25	User Defined	D26	User Defined
26	User Defined	D27	User Defined
27	User Defined	D28	User Defined
28	User Defined	D29	User Defined
29	User Defined	D30	User Defined
30	User Defined	D31	User Defined
31	User Defined	GND	User Defined
32	User Defined	+5 VDC	User Defined

Notes: (†) RESERVED was redefined as RETRY*, and (††) SERCLK & SERDAT* were changed to user defined pins in the Revision D VMEbus specification.

Jaux

Pin Number	Row A	Row B	Row C
1	SN1	GND	SN2
2	SN3	GND	SN4
3	SN5	GND	GND
4	CK*	GND	CK
5	SG*	GND	SG
6	CL*	GND	CL
7	-2V	-2V	-2V
8	-15V	CE	+15V
9	-5V	-5V	-5V
10	-5V	-5V	-5V

A.4. J1, J2, J_{aux} pin allocation table